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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/488,028	01/20/2000	Eric Cohen-Solal	US 000015	3849

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EXAMINER	
HAILU, TADESSE	
ART UNIT	**PAPER NUMBER**
2173	18

DATE MAILED: 01/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/488,028	COHEN-SOLAL ET AL.	
	Examiner	Art Unit	
	Tadesse Hailu	2173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *07 December 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) *1,2,4 and 6-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *1,2,4,6-10 and 12-15* is/are rejected.

7)☐ Claim(s) *11* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. This Office Action is in response to Request for Reconsideration entered 12/7/2003 for the application (09/488,028), filed on 1/20/2000.

2. The pending claims 1, 2, 4, 6-15 are examined.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1, 2, 4, 6, 7, 12-15 are rejected under 35 U.S.C. 102(a) as being anticipated by Brøndsted, et al "The IntelliMedia WorkBench A Generic Environment For Multimodal Systems," (1998).

With regard to claim 1:

As per "a method of locating and displaying an image of a target," Brondsted describes a method of locating and displaying an image of a target (see fig. 1);

As per "sensing a triggering event generated by a human operator;" Brondsted describes sensing spoken word (key word or command) as well as user's gesture via a microphone and camera respectively (see section 3);

As per "receiving additional external information that characterizes at least one machine-sensible feature of a target, said receiving step occurring substantially

simultaneously with said sensing step;" since Brondsted is a multimodal system, thus additional information about a target or location can be received through spoken word (extracted key word) input as well as through gesture input (section 3). These inputs are executed simultaneously (section 2.1);

As per "aiming a camera in response to said sensing and said receiving step, wherein said sensing step includes sensing a gesture indicting a direction of said target." Brondsted describes a simultaneous speech and gesture input implemented on Workbench (see section 2.1). Brondsted further describes and illustrates (fig. 1) a camera directed toward the target; wherein the camera continuously captures the pointing hand over the workbench while the user/operator describes the location (section 2.1).

With regard to claim 2:

As per "... said sensing step includes sensing a gesture of a human operator indicating a target." Brondsted discloses Gesture recognizer (fig. 2) for sensing a gesture of a human operator indicating a target (see Brondsted, fig. 1).

With regard to claim 4:

As per "... said receiving step includes receiving speech from said human operator." Brondsted discloses Microphone (fig. 2) for receiving speech from said human operator (see Brondsted, section 2.1).

With regard to claim 6:

As per "... processing said speech for use with at least one machine sensor, said at least one machine sensor and said speech assisting in locating said target."

Brondsted disclose Speech recognizer, Speech synthesizer, and Microscope (see Brondsted, fig. 2, and section 2.1).

With regard to claim 7:

As per "... said sensing step includes sensing a gesture indicting a direction from said human operator to said target." Brondsted discloses a gesture indicating a direction form said human operator to said target (see Brondsted, fig. 1).

With regard to claim 12:

As per "A method of locating and displaying an image of a target," Brondsted describes a method of locating and displaying an image of a target (see fig. 1);

As per "scanning an area within the range of at least one sensor;" Brondsted illustrates scanning a workbench (area) with a camera and laser pointer (fig. 1);
As per "identifying potential targets;" Brondsted describes identifying location (target) on the workbench shown with a campus information application (see section 2);

As per "storing information concerning machine sensible characteristics and locations of said possible targets;" Brondsted describes storing the multimodal campus information (section 2.1).

As per "sensing a triggering event, said triggering event generated by a human operator;" Brondsted describes sensing spoken word (key word or command as well as user's gesture via a microphone and camera respectively (see section 3);

As per "receiving additional external information that characterizes at least one feature of said target, said receiving step occurring substantially simultaneously with said sensing step;" since Brondsted is a multimodal system, thus additional information

about a target or location can be received through spoken word (extracted key word) input as well as through gesture input (section 3). These inputs are executed simultaneously (section 2.1); and

As per "aiming a camera in response to said sensing, storing and said receiving steps, wherein said sensing step includes sensing a gesture indicting a direction of said target." Brondsted describes a simultaneous speech and gesture input implemented on Workbench (see section 2.1). Brondsted further describes and illustrates (fig. 1) a camera directed toward the target; wherein the camera continuously captures the pointing hand over the workbench while the user/operator describes the location (section 2.1).

With regard to claim 13:

As per "A method of aiming a camera at a target," Brondsted illustrates aiming a camera and a laser pointer at a campus map location (target) (fig. 1).

As per "inputting an indication of a position of a target;" Brondsted illustrates and describes pointing toward a location of a target (fig. 1, see also section 3);

As per " inputting further information about a machine-sensible characteristic of said target;" Brondsted describes sensing spoken word (key word or command) as well as user's gesture via a microphone and camera respectively (see section 3);

As per "aiming a camera at said target in response to said indication and said further information to reduce an error in said aiming, wherein said inputting an indication step includes inputting a gesture indicting a direction of said target." Brondsted describes a camera and a laser pointer directed or focused toward a displayed

workbench application. Brondsted further describes an automatic calibration procedure involving both the camera and laser pointer. Using the camera the gesture recognizer is able to track 2D pointing gestures in real time. The camera continuously captures images. The hand gesture or the hand motion is analyzed in order to find the direction of the pointing hand (device) and its edge.

With regard to claim 14:

Claim 14, while not necessary identical in scope, contain limitations similar to independent claim 13 and therefore are rejected under the same rationale.

With regard to claim 15:

As per "...said step of orienting includes orienting a camera." Brondsted, as illustrated in fig. 1 shows oriented camera view toward a workbench.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tom Brøndsted, et al "The IntelliMedia WorkBench A Generic Environment For Multimodal Systems," (1998) in view of Indrajit Poddar, et al "Toward Natural Gesture/Speech HCI: A Case Study of Weather Narration," (1998).

With regard to claim 8:

As per "...said processing step includes processing said voice information through a look-up table corresponding said speech to search criteria for use with said at least one sensor." Brondsted does describe different module and for storing data, but Brondsted fails to describe "processing said voice information through a look-up table corresponding to said speech to search criteria for use with said at least one sensor." Poddar discloses a multimodal system, including speech (via Microphone) and gesture (hand) input (section 3). Poddar further discloses processing voice information through a look-up table (table1- table 4). Therefore it would have been obvious as the time the invention was made to replace Brondsted's voice information memory with Poddar's look-up table because it would be easier to structure the voice information and access the voice information as a table format.

With regard to claim 9:

As per "... said look-up table is modifiable." Brondsted in view of Poddar further describe replacing key words of the table, modifiable look-up table (Poddar, section 3).

With regard to claim 10:

As per "...said look-up table modifiable by receiving information through the on-line global compute network. ' since Brondsted system can be implemented in a distributed environment (sections 2.1- 2.2), the look-up table (voice data memory module) could be modified by information received from other remote devices.

Allowable Subject Matter

5. Claim 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Although Brondsted and Poddar describes a modifiable look-up table (poddar, section 3) that includes replaces word or phrase input with another input and a corresponding search criteria (Poddar, section 3), " said added voice input and said corresponding search criteria established by comparing previous association of said added voice input with at least one machine sensible characteristic of at least one correctly identified target associated with said voice input, said machine sensible characteristic being a basis for determining said corresponding search criteria." not clearly described.

Response to Arguments

6. Applicant's arguments filed 12/7/2003 have been fully considered but they are not persuasive. Applicant argues, "the spoken query inputs in this [2.1] section of Brondsted do not teach "receiving additional external information that characterizes at least one machine-sensible feature of a target." However, in section 2.1, Brondsted describes the multimodal system receives input from both speech and/or gesture simultaneously. Thus, the examiner believes that in addition to a pointing gesture recognition, the user can issue spoken commands or key words (additional external information) to the speech recognition system, then, the multimodal system of Brondsted outputs a synchronized pointing gesture and/or speech (issued spoken

commands) (see sections 2.1-2.2). Thus, Brondsted describes "receiving additional external information that characterizes at least one machine-sensible feature of a target." Applicant further argues Brondsted fails to teach at least orienting an instrument with respect to said target to acquire said target in response to said spatial information and further information to reduce an ambiguity in said position." In contrast, Brondsted describes simultaneous inputs of speech and /or gesture to reduce the ambiguity when acquiring a target (see sections 2.1-2.2).

Furthermore, the applicant argues that Poddar does not include teachings that cure the deficiencies of Brondsted. In contrast to the applicant's argument, Poddar, as in Brondsted, teaches a multimodal system including the claimed look-up table (see table 1-4).

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Tadesse Hailu, whose telephone number is (703) 306-2799. The Examiner can normally be reached on M-F from 10:00 - 6:30 ET. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, John Cabeca, can be reached at (703) 308-3116 Art Unit 2173 CPK 2-4A51.

9. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Tadesse Hailu

1/13/2004

JOHN CABECA
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